REMARKS

Reconsideration is respectfully requested.

Telephonic Interview

Applicants' undersigned representative wishes to thank the Examiner for agreeing to the telephonic interview conducted on June 3, 2009. During the interview, the representative discussed proposed claim amendments and the cited Goringe et al. and Matheny et al. references. It was agreed that the amendments necessitated a new search and reconsideration of patentability. Careful reconsideration of the dependent claims was also urged.

Claim Amendments

In this Amendment, applicants have amended claims 1, 17, 25 and 26. Applicant is not conceding that the subject matter encompassed by the claims prior to this Amendment is not patentable over the art cited by the Office. Claims 1, 17, 25 and 26 were amended in this Amendment solely to facilitate expeditious prosecution the application. Applicants respectfully reserve the right to pursue claims, including the subject matter encompassed by the claims as presented prior to this Amendment, together with additional claims, in one or more continuing applications.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 3-5, 17, 21-24 and 27-30 were rejected under 35 U.S.C. 103 as being unpatentable over Matheny et al. (US 2002/0161883) in view of Goringe et al. (US 2003/0046427). Applicants respectfully traverse.

Section 103 requires the issuance of a patent unless "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would

have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). See also *KSR*, 127 S.Ct. at 1734, 82 USPQ2d at 1391 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.").

The USPTO bears the initial burden of establishing that a claimed invention is prima facie obvious. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). To establish a prima facie case of obviousness, the USPTO must satisfy three requirements. First, it must "identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, *supra*. Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the artisan at the time the invention was made. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991). Third, the prior art reference or combination of references must teach, suggest or otherwise render obvious all the limitations of the claims considered as a whole. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

On October 10, 2007, the USPTO issued new examination guidelines for determining obviousness under 35 U.S.C. 103 in view of the *KSR* case. Federal Register, Vol. 72, No. 195,

pages 57526-57535. The examination guidelines emphasize that "the focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the time of the invention, and on what such a person would have reasonably expected to have been able to do in view of that knowledge." Fed. Reg., Vol, 72, No. 195 at page 57527. The examination guidelines point out on page 57527 that "[i]n certain circumstances, it may also be important to include explicit findings as to how a person of ordinary skill would have understood prior art teachings, or what a person of ordinary skill would have known or could have done." As additionally stated on page 57527, "[f]actual findings made by Office personnel are the necessary underpinnings to establish obviousness."

Scope And Content of Matheny et al.

Matheny et al. discloses a system wherein plural agents are given overlapping discovery assignments. As stated in lines 3-5 of Matheny's paragraph [0025], "[t]he same device may be discovered multiple times, by different discovery agents." Matheny's claim 1 likewise recites that the discovery data includes "two or more duplicate data entries," which requires "removing all but one of the duplicate data entries from the discovery document." The Examiner acknowledges this in the section 103 rejection by noting that Matheny et al. "fails to disclose said discovery assignments being non-overlapping."

Scope and Content of Goringe et al.

Goringe et al. discloses a system wherein two discovery agents 308 and 310 (see Fig. 3) are respectively capable of discovering SNMP-MIB information and OSPF information. The full discovery capabilities of each agent are utilized to conduct discovery, just as in Matheny et

al. The only difference is that the agent discovery capabilities in Goringe et al. are non-overlapping, which necessitates that their actual discovery must also be non-overlapping.

Claim 1

The principal argument regarding claim 1 is that paragraph [0043] of Goringe et al. teaches hindering the full discovery capabilities of agents to avoid overlapping discovery. This alleged teaching is used to support the argument that it would have been obvious to modify Matheny et al. by limiting the discovery conducted by multiple discovery agents so as to be non-overlapping. Applicant respectfully disagrees. Paragraph [0043] of Goringe et al. is discussing how the MIB discovery agent 308 and the OSPF discovery agent 310 avoid duplication of computational effort by using several lists of hosts (routers) that need to be discovered or have already been contacted. Importantly, these agents conduct discovery in separate phases, namely an MIB discovery phase to download MIB information in the routers followed by an OSPF discovery phase to download OSPF link state information from routers that support OSPF, respectively. See paragraph [0040]. Thus, the two discovery agents have non-overlapping discovery capabilities because they seek different types of information. See Abstract.

Because discovery is conducted in separate phases by discovery agents seeking different types of information, paragraph [0043] does not deal with how the discovery agents restrict their discovery efforts relative to each other. Rather, paragraph [0043] simply describes keeping track of the routers that have been queried so that the routers are not revisited during the same discovery phase by the same discovery agent. The lists are not used so that the OSPF discovery agent does not revisit routers already visited by the MIB discovery agent to discover

the same information twice, as suggested in the paragraph spanning pages 3-4 of the Office Action. According to paragraph [0043], there is initially an outstanding list 320 (Fig. 12) that lists all candidate hosts (MIB and OSPF) yet to be contacted. During the MIB discovery phase, the MIB discovery agent starts contacting routers on the list. Routers that have been contacted and do not need to be contacted again (i.e., because they do not support OSPF) are placed on a finished list 324 (Fig. 13). On the other hand, routers that do support OSPF are added to an initial gateway list 328 (Fig. 11) so that these routers can be explored by the OSPF agent during the OSPF discovery phase. Paragraph [0043] is thus describing nothing more than the MIB discovery agent keeping track of which routers it has contacted so it doesn't contact them twice, and also flagging OSPF routers for the benefit of the OSPF discovery agent so that this agent does not consult routers that are outside its discovery capability.

In contrast, claim 1 deals with limiting the discovery assignments of agents that are capable of discovering the same information. This point is clarified in the amendment to claim 1. Because the Goringe et al. discovery agents are not capable of discovering the same information, their discovery assignments are not restricted to prevent overlapping discovery. There is no need to do this. All that Goringe et al. does in paragraph [0043] is to ensure that the MIB discovery agent does not repeat its own previous discovery efforts so that the OSPF agent does not have to bother with routers that have no OSPF information to discover. Moreover, it should be pointed out that the list manipulation of paragraph [0043] is a run-time operation conducted on the fly as discovery proceeds. Claim 1 pertains to discovery assignments computed prior to discovery, as additionally clarified by the present amendment.

Based on the foregoing differences, it cannot be said that the subject matter of claim 1 would have been obvious in view of the cited references. Accordingly, it is respectfully requested that the rejection of claim 1 be withdrawn.

Claim 3

Claim 3 should be allowable based on its dependence from claim 1. In addition, the cited references do not render obvious the amended claimed subject matter wherein discovery assignments are based on a determination of which discovery agents having overlapping discovery capabilities are most fit to receive discovery assignments. Paragraph [0019] of Matheny et al. does not make discovery assignments based on fitness. The last sentence of this paragraph states that all eligible agents (based on discovery address range) are given the discovery assignment.

Claim 4

Claim 4 should be allowable based on its dependence from claim 1. In addition, the cited references do not render obvious the claimed subject matter wherein discovery assignments reflect one or more of data collection service registrations in which a network manager in said system registers with said plural discovery agents to receive specified discovery information, agent cost to obtain network information, load balancing among said plural discovery agents, and assignment churn. Paragraph [0017] does not disclose a registration operation in which a network manager registers with agents. It discloses the registration of agents with a discovery manager.

Claim 5

Claim 5 should be allowable based on its dependence from claim 1. In addition, the cited references do not render obvious the claimed subject matter wherein discovery assignments comprise both inband and outband discovery assignments. Paragraph [0011] of Matheny et al. does not mention inband or outband discovery. Although paragraph [0011] of Matheny et al. discusses SNMP discovery, which is a type of outband discovery, there is no reference to anything called outband discovery.

Claim 17

Independent claim 17 distinguishes over the cited references due to its recitation of discovery capability logic providing agent discovery capability information to a requester that is a subset of all discovery information obtainable by said agent. Paragraph [0019] of Matheny et al. is cited as disclosing this claim element. Note that claim 17 deals with a discovery agent. The claim element in question refers to discovery capability logic in the discovery agent that **provides** the subset discovery capability information [e.g., to a network manager]. In Matheny et al., a discovery agent registers its full capabilities in the discovery database. Thus, it only provides information about its full capabilities, not a subset thereof. That the network manager subsequently searches on a subset of the agent's range of IP addresses is irrelevant. The network manager is simply selecting the discovery information it wants from the **full set of discovery information** previously provided by the agent. Thus, this element of claim 17 is not met.

Independent claim 17 has also been amended in similar fashion to claim 1 and should be allowable for the same reasons.

Claim 21

Claim 21 should be allowable based on its dependence from claim 1.

Claim 22

Claim 22 should be allowable based on its dependence from claim 1. In addition, the cited references do not render obvious the claimed subject matter wherein discovery agents that are capable of discovering information are given no discovery assignment at all. In Matheny et al., paragraph [0019] states that all agents having discovery capability matching the requested address range are given discovery assignments. In Goringe et al. the two discovery agents conduct discovery of all information they are capable of discovering.

Claim 23

Claim 23 should be allowable based on its dependence from claim 1. In addition, the cited references do not render obvious the claimed subject matter wherein the agents store discovery assignments. According to paragraphs [0019] and [0020] of Matheny et al., agent discovery assignments are implemented by calling an agent using a command file generated by a network manager. There is no mention of a discovery agent storing an assignment. In paragraph [0043] of Goringe et al, discovery is performed on the all the network hosts in the outstanding list 320. Again, there is no mention of a discovery agent storing an assignment.

Claim 24

Claim 24 should be allowable based on its dependence from claim 1. In addition, the cited references do not render obvious the claimed subject matter wherein discovery assignments are based on considerations such as a cost to discovery each network device.

Paragraphs [0017] and [0019]-[0020] of Matheny et al. do not disclose this because all agents capable of discovering a requested address range are given assignments.

Claims 25-26

Claims 25-26 were deemed to patentably distinguish over the cited art. These claims have been non-substantively amended to correct a grammatical error therein.

Claim 27

Claim 27 should be allowable based on its dependence from claim 1. In addition, the cited references do not render obvious the claimed subject matter wherein discovery agents conduct agent capability queries in response to capability polls. Paragraph [0019] of Matheny et al. is discussing discovery queries, not capability queries. Capability is determined by Matheny et al. during agent registration in the database per paragraph [0017].

Claim 28

Claim 28 should be allowable based on its dependence from claim 27. In addition, the cited references do not render obvious the claimed subject matter wherein the capability queries seek a minimal subset of information. Paragraph [0019] of Matheny et al. is discussing discovery queries, not capability queries. Capability is determined by Matheny et al. during agent registration in the database per paragraph [0017].

Claim 29

Claim 29 should be allowable based on its dependence from claim 27. In addition, the cited references do not render obvious the claimed subject matter wherein the agents implement full discovery and further implement the agent capability query that gathers a subset of information. Paragraph [0019] of Matheny et al. is discussing discovery queries, not capability

queries. Capability is determined by Matheny et al. during agent registration in the database per paragraph [0017].

Claim 30

Claim 30 should be allowable based on its dependence from claim 27. In addition, the cited references do not render obvious the claimed subject matter wherein the capability queries are based on capability polls issued in response to various events. Paragraph [0019] of Matheny et al. is discussing discovery queries, not capability queries. Capability is determined by Matheny et al. during agent registration in the database per paragraph [0017].

Claim 31

Claim 31 was deemed to patentably distinguish over the cited art.

In view of the foregoing, Applicants respectfully request that all rejections be withdrawn and that Notices of Allowability and Allowance be issued.

Respectfully submitted,

/Walter W. Duft/

Walter W. Duft
Attorney for Applicant
Registration No. 31,948

Law Offices of Walter W. Duft
8616 Main Street, Suite 2
Williamsville, New York 14221
Telephone: (716) 633-1930
Facsimile: (716) 633-1932